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for

ONSITE BACKUP FOR INTERNET-BASED DATA PROCESSING

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ONSITE BACKUP FOR INTERNET-BASED DATA PROCESSING

Claim of Priority

This application is a continuation in part of copending U.S. Patent Application Serial No. 09/610,709 filed July 7, 2000.

Field Of The Invention

The invention relates to outsourced, Internet-based data processing and more particularly to safeguarding customer/client data when a business outsources data processing to third party Internet-based systems.

Background Of The Invention

In an effort to improve customer service, companies are increasingly moving their data processing systems onto the Internet and providing web interfaces for their customers to see and manipulate their own data. Examples include my prior U.S. Patent No. 5,895,468 and related U.S. Application Serial No. 09/237,521. Many other Internet based order entry and payment billing systems also exist.

Also companies are or soon will be outsourcing data processing for their own customers to third parties who, for example, develop and host the companies' web sites. This cuts costs and relieves companies of having to hire software expertise to service their customers and also relieves them of having to maintain hardware for scalability and to prevent service outages which erode customer confidence in the company. Further, hardware can be located in one place to minimize maintenance and bandwidth

costs, while software and data entry can be located in one or multiple places where it is least expensive and can offer 24/7 coverage.

One difficulty companies face when considering whether to outsource data-processing to third party, Internet-based systems is the safeguarding of their and their clients' data. This problem is exacerbated when the company has a duty or professional responsibility to safeguard the data, such as a publicly traded company, law firm or medical practice. Another difficulty companies face in considering to outsource is continuity of service if, for example, the third party were to go out of business.

Many companies who currently perform their own data processing and are sensitized to the need to safeguard their and their customers' data have recently connected their LANs to the Internet, and are beginning to use third-party, Internet-based backup services (see FIG. 2). This provides a prudent off-site backup but does not offer the benefits of outsourcing the data processing to the Internet. Internet data backup companies include, inter alia, and Storage Tek.

Internet-based application service providers, so-called "ASPs" are known and provide the advantage that hardware and software maintenance and upgrades are centrally managed by a third and not by each user or each LAN (see FIG. 3). User data may even be stored on the internet site, however, the data is still entered and manipulated by each user on his LAN/computer and the data manipulation and reporting is handled by each user on his LAN/computer.

What is desired, therefore, is an Internet-based data processing system which safeguards data providing an incentive for companies to outsource their data processing. Safeguarding applications, and especially any user customized settings, would also be desirable.

Summary Of The Invention

It is an object of the invention to safeguard the integrity of client data in an Internet-based data processing system or business.

Another object of the invention is to provide third party Internet-based data processing in which clients have access to and control over their own data.

A further object of the invention is to provide an Internet-based data processing system in which clients can obtain a copy of their data for on-site backup.

Yet another object of the invention is to provide a system of the above character in which the backup is provided in a format other than that used by the third party data processing system.

Yet a further object of the invention is to provide a system of the above character in which the data is encrypted to protect its confidentiality.

Still another object of the invention is to safeguard the third-party data processing software for use by the client in the event the third party were to go out of business.

These and other objects and advantages will become more apparent from the following detailed description considered with reference to the accompanying drawings.

INS. A1

Brief Description Of The Drawings

FIG. 1 is a block diagram of an Internet-based data processing system providing backup on clients' sites.

FIG. 2 is a block diagram of prior art systems providing Internet backup for data processing on clients' sites.

FIG. 3 is a block diagram of prior art systems providing Internet hosting of application and storage of data.

FIG. 4 is a block diagram of the system of FIG. 1 illustrating additional format conversion and encryption features.

Detailed Description Of Drawings

Fig. 1 is a block diagram of an Internet-based data processing system providing backup on clients' sites. The client computer 20 and data processing system 15 are connected by an Internet communications link 10. The client computer 20 executes software (Fig. 4 No. 38), residing on the data processing system15, for storing data on the data processing system. The client computer 20 executes software, residing on the data processing system 15, for displaying, updating, and deleting data 18 stored on the central processing system 15. The data processing system 15 transmits 14 a copy of stored data to the client computer 20. The client computer 20 issues commands 18 for transmitting (restoring) data 16 back to the data processing system 15. The client computer 20 executes software 18, residing on the data processing system 15, requesting reports from the data processing system 15. The data processing system 15 transmits reports 22 to the client computer 20. The client computer can generate reports 24 and transmit said generated reports to a client customer 26.

FIG. 2 is a block diagram of prior art systems providing Internet backup for data processing on clients' sites. The client computer 50 and data backup system 55 are connected by an Internet communications link 70. Data displayed, manipulated, and deleted (not shown) by the client computer 50 is stored on the client computer 50. The client computer 50 executes software for transmitting a copy of data 52 to the data backup system 55. The client computer executes software for retrieving data 54 stored on the data backup system 55. There is no onsite backup of data for the client computer 50 to retrieve.

FIG. 3 is a block diagram of prior art systems providing Internet hosting of application and storage of data. The client computer 60 and application hosting system 65 are connected by an Internet communications link 75. Data displayed, manipulated, and

deleted (not shown) by the client computer 60 is stored on the application hosting system 65. There is no onsite backup of data for the client computer 60 to access.

FIG. 4 is a block diagram of the system of FIG. 1 illustrating additional format conversion and encryption features. This additional feature allows a client to back-up data on-site that is securely stored in a plurality of formats the client may require. The client computer 20 transmits a request 32 to the data backup system 15. The data backup system 15 accesses data (stored on the data backup system 34), reformats the data, encrypts the data, and transmits the data 40, 14 to the client computer 20. The client computer 20 receives, decrypts, and stores 38 the data onsite 36.

It is to be understood that although specific embodiments of the invention have been described herein in detail, such description is for purposes of illustration only and modifications may be made thereto by those skilled in the art within the scope of the invention.